

Abstract

A method and system for processing subband signals using adaptive filters is provided. The system is implemented on an oversampled WOLA filterbank. Inputs signals are oversampled. The system includes an adaptive filter for each subband, and the functionality of improving the convergence properties of the adaptive filter. For example, the convergence property is improved by whitening the spectra of the oversampled subband signals and/or affine projection algorithm. The system is applicable to echo and/or noise cancellation. Adaptive step size control, adaptation process control using Double-Talk detector may be implemented. The system may further implement a non-adaptive processing for reducing uncorrelated noise and/or cross-talk resistant adaptive noise cancellation.